

Surface Seals

Problems and Solutions

Natural soils act as filters, helping to keep ground water clean. When we drill wells and remove soils, we need to keep potentially dirty water from entering wells from the surface. One of the most cost-effective ways to protect your water supply is to properly seal the small space between the well casing and drilled hole.

What is a "surface seal," and why is one needed on a well?

Well drillers use casing, typically steel, to keep drilled holes from collapsing. If just the native materials are allowed to fill in around the casing, a conduit for water can form on the outside of the casing, so that dirty water can travel down the casing and into your well. To prevent this, a surface seal is used. The sealing material is usually made of bentonite clay or special cement (grout) mixture.

When the well is drilled, the upper portion of the hole should be four inches greater in diameter than the casing. Filling that space with proper materials is called "sealing."

Sealing the top eighteen feet of your well will help protect your family's health.

The construction standards of Washington State require at least 18 feet of surface seal protection in all water supply wells. This is measured from the top of the ground, to a depth of 18 feet below. While 18 feet is the minimum required depth, sometimes a deeper seal is needed. Your driller will be able to tell you the specifics of the law, because the standards vary slightly depending on things like the well drilling method, local geology and total depth of the well.

How can I be sure my surface seal is adequate?

First, discuss your concerns with the driller before the well is started. Let the driller know how important a good seal is to you. Make sure your contract includes an adequate surface seal. Seek the driller's advice on how the seal will be installed, and the best product for creating the seal.

What else should I do?

Protecting the quality of your well water is largely up to you, once a proper well is constructed. Be careful how you treat the ground around your well head. Don't store or handle chemicals or fuels anywhere near a well. Consider building a well house, or providing good native plant cover to keep the area from being disturbed. Remember, protecting your well helps keep your water, and your neighbor's water pure.

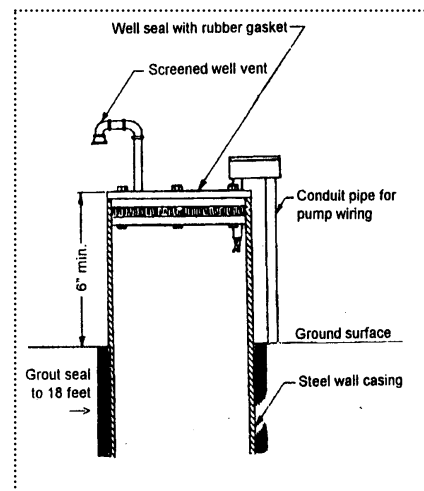


Diagram of a correctly installed well head

For more information

Contact the Ecology regional office nearest you or call 1-800-468-0261.

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